



RECEIVED

JUL 22 2004

RECEIVED CENTER 2000

## CLAIM LISTING

No claims have been amended, canceled, withdrawn, or added in the present Paper. A Claim Listing is provided as a courtesy.

Claim 1. (Canceled).

2. (Previously Presented) The laser of claim 33, wherein:
  - (a) said channel selector tuner is operable according to a channel selection signal; and
  - (b) said external cavity is operable according to a cavity mode signal.
3. (Original) The laser of claim 2, wherein said channel selection signal is derived independently from said cavity mode signal.
4. (Original) The laser of claim 3, wherein:
  - (a) said channel selection signal is derived from channel selector tuning data in a look-up table; and
  - (b) said cavity mode signal is derived from a detector configured to measure external cavity loss associated with cavity optical path length.
5. (Previously Presented) The laser of claim 33, wherein:
  - (a) said channel selector tuner is operatively coupled to a first controller and operable according the channel selector tuning data in a look-up table; and
  - (b) said external cavity tuner is operatively coupled to a second controller and operable according to error signals derived from a detector configured to measure external cavity loss associated with cavity optical path length.

Claims 6-15. (Canceled)

16. (Previously Presented) The external cavity laser apparatus of claim 5, wherein said detector comprises a voltage sensor configured measure voltage modulation across said gain medium.

17. (Previously Presented) The external cavity laser apparatus of claim 5, further comprising a modulation element, said modulation element operatively coupled to said external cavity and configured to introduce a modulation to said cavity optical path length, said modulation usable to derive a cavity error mode signal.

18. (Previously Presented) external cavity laser apparatus of claim 33, wherein said laser mode tuning assembly comprises a thermally tunable compensating member, said thermally tunable compensating member coupled to said end mirror.

19. (Previously Presented) The external cavity laser apparatus of claim 2, wherein the channel selector is a grid generator.

Claims 20-32. (Canceled).

33. (Previously Presented) A laser, comprising:

- a gain medium having first and second output facets, the gain medium emitting a coherent beam from the first output facet along an optical path;

- an end mirror located in the optical path, the end mirror and the second output facet defining an external cavity;

- a laser mode selector positioned in the optical path before the end mirror;

- a laser mode tuning assembly operatively coupled to the end mirror to adjust the position of the end mirror to adjust the optical path length of the external cavity to lock the laser onto a peak of a first passband, the first passband representing the laser mode;

- a laser channel selector positioned in the optical path; and

a laser channel tuning assembly operatively coupled to the laser channel selector to adjust the position of the laser channel selector to lock the laser channel onto a peak of a second passband, the second passband representing the laser channel,

the laser channel tuning assembly further coupled to adjust the position of the laser channel selector to unlock the laser channel from the peak of the second passband, while the laser mode tuning assembly is to maintain the laser mode locked onto the first passband.

Claim 34. (Canceled).